# An Empirical Study of Livelihood Pattern of Civic Employees Engaged in Solid Waste Management in Dakshina Kannada District

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## INTRODUCTION

India is one of the fastest developing economies in the World. Industrialization and economic consolidation are the two important indicators of country's development. Increased industrialization and economic activity lead to urbanization, which in turn leads to greater waste generation in urban areas. Proper management of generated waste is very much essential to protect environment as well as human survival. In most countries, including India, the local administration or municipality administration manages the waste and maintains city sanitation in their jurisdiction. The employees employed by the Municipality administration to perform the task of waste management and city sanitation are called as sanitation workers.

The word management does not have any significance if there is no human effort, in the same way solid waste management cannot be efficiently managed without the proper involvement of human force. The human factor plays an important role in solid waste management, Human factor here means, sanitation Employees, are those who recruited directly or indirectly by Municipality administration to look after the work of solid waste management. They serve day and night for city cleanliness. They are the pillars of society who make the city more beautiful and cleaner. They render valuable service to the society.

## SOLID WASTE MANAGEMENT

Solid waste means any garbage, refuse, material which resulting from industrial, commercial, mining and agricultural operations, and from community activities. It consists of both biodegradable materials as well as non-biodegradable materials which are cannot be directly usable.

Solid waste management means proper handling of generated solid waste. In India solid waste management is the responsibility of concerned Municipalities. According to the report, India produces an average of 960 million tons of solid waste annually, which is far more than the rice production. It majorly includes the processes such as collection of waste, treatment of waste and dumping.

**Solid waste management includes following processes:**

1. Collection of waste
2. Treatment of waste
3. Dumping of waste

**1. Collection of waste**

Collection of waste means**,** collection of waste from various sources and through various methods. It includes, door to door collection and through public place sweeping. Door to door collection means collection of waste by visiting the homes of public or visiting to the door of public buildings. Waste collection through public place Sweeping means collection of waste by sweeping roads and public places.

**2. Treatment of waste:**

Treatment of waste means, identification and classification of the total collected waste as biodegradable and biodegradable, recyclable and non-recyclable and need to be processed before dumping and need not processed before dumping.

**3. Damping of waste:**

Under this stage the sanitation employees need to make arrangements for waste disposal. It includes the process of transporting the waste from the storage point to the disposal site.

**SANITATION EMPLOYEES**

Sanitation employees provide an essential public service around the world. These workers are vital to the proper functioning of the sanitation systems within the country and to achieve the agenda of "Swacch Bharath Mission". In cities city sanitation done by civic sanitation employees. Sanitation employees are called by different names in different parts of India. In northern part of India Sanitation employees called as Safai Karamcharis. In Karnataka state they are called as Paurakarmikas. They are popularly called as Green Army of the city, mainly because of their contribution to maintaining urban hygiene and providing a healthy environment for society. They struggle throughout the day to keep their respective cities clean. The beauty of the city lies in the hands of sanitary employees. The vast

majority of society considered sanitation work as cheap work. Their effort to maintain public sanitation and public health are tremendous contribution to the society.

Sanitary employees engaged in solid waste management usually perform all of the following tasks: picking the street waste, street and public place sweeping, door to door collection of waste, transportation of waste from collection place to storage place and storage place to dumping site, treatment of waste and work related to waste dumping. City cleanliness is possible mainly because of the effort and hard work of Civic Sanitation Workers. They care day and night for the cleanliness of the city but sad thing is that vast majority of the society least bothered about them as well as their contributions to the society. But it is the duty of every citizen to respect sanitary workers and their contributions to society.

## DISTRICT PROFILE

Dakshina Kannada is a district which is located on the coastal part of Karnataka in India. The district is popularly known as '**Tulu Nadu'.** This is because of most of theresidents of the district usually communicate this language. Along with other occupations agriculture and fishery, are the basic occupations of the district. The district has its own features, with some historical and geographical background. The district has good records in the field of education and banking, resulting in large numbers of people migrating from other states or districts to this district.

## MUNICIPAL ADMINISTRATION

Municipality administration is a local administration has the responsibility of city or urban area which has more than one million populations. Every city which have more than one million populations in India under the Administration Jurisdiction of Municipality Corporation. The two main objectives of the municipality are, to strive for the sustainable development of the city and to proper manage the waste generated in the city.

There are eleven municipalities under the Dakshina Kannada Municipal Administration. Namely Mangaluru City Corporation, City Municipal Council – Ullala, City Municipal Council – Puttur, Town Municipal Council – Moodabidri, Town Municipal Council – Bantwal, Town Panchayath – Kotekar,TownMunicipal Council – Someshwara, Town Panchayath – Mulki, Town Panchayath– Vittla,Town Panchayath – Belthangady, Town Panchayath – Sullia.

**Municipalities under the Municipal Administration of Dakshina Kannada District**

| Serial No. | Name of the Municipality Council | Population size (as per 2011 census) | No. of wards |
|---|---|---|---|
| 1 | Mangaluru City Corporation | 623841 | 60 |
| 2 | City Municipal Council– Ullala | 53,773 | 27 |
| 3 | City Municipal Council– Puttur | 53,061 | 27 |
| 4 | Town Municipal Council –Moodabidri | 29,431 | 23 |
| 5 | Town Municipal Council –Bantwal | 40,155 | 23 |
| 6 | Town Panchayath – Kotekar | 16,505 | 17 |
| 7 | Town Municipal Council –Someshwara | < 20000 | 8 |
| 8 | Town Panchayath – Mulki | 17,274 | 17 |
| 9 | Town Panchayath – Vittla | 17,618 | 18 |
| 10 | Town Panchayath –Belthangady | 7,746 | 11 |
| 11 | Town Panchayath – Sullia | 19,958 | 20 |

## REVIEW OF LITERATURE INDIAN LITERATURES:

## I. INDIAN LITERATURES:

**C.Anusuya and Dr.A.Kavitha (2019)** had conducted a research to explore the morbidity condition of the respondents employed in street sweeping in Rajapalayam Taluk of Tamil Nadu state in India. For the purpose of Study 72 respondents from 42 villages in Rajapalayam Taluk were selected. This study reported several health issues among the workers such as Laceration, Fungal Infection, and Chronic cough and Running nose, eyes Redness and eyes Watering, Leptospirosis, and Musculoskeletal Disorders. Authors suggested that government should provide proper training on the use of safety equipmnets, undertake free and regular medical check-up programs to reduce the health issues among workers and itsimpact on workers.

**Priyanka B. Dongre and Rahul K. Kamble(2019)** investigated occupational health among rag pickers in Chandrapur district of Maharashtra. This study considered 30 rag pickers engaging in solid waste collection process. Occupational health issues identified by using Expiratory Flow Rate. It was reported that normal Occupational health problems faced by the respondents include musculoskeletal disorder, dermatological problems, eyes problems, respiratory diseases, and gastrointestinal problems. Viral fever has emerged as a common infectious disease. At the end of study Researcher suggested that, Government should address the issues relating to workers at the earliest so as to reduce the disease burden on them to a large extent.

**C. Thanga Sheeba and B. Mary Sahela (2019),** carried out a study to analyse the economic conditions, health status and to examine the problem faced by the scavengers working in Nagercoil city of Tamilnadu. This study consists of 159 respondents of which 82 are permanent workers and remaining 77 are contract employees. The study analyzed economic conditions of workers and health problems faced by workers. It showed that workers' expenditures were higher than incomes, indicating that the prevailing wage system was not conducive to meeting workers' basic and regular needs. This study reported some health problems faced by workers, such as workplace accidents, disease caused from heavy work exposure. It is showed that overall socio- economic condition of permanent employees is far better than the contract workers.

**Francis J. Emmatty, Vinay V. Panicker (2019)** had undertaken a systematic review to explore occupational health problem among sanitation workers and to develop a hierarchical framework for the implementation of ergonomic interventions in waste related occupations. This systematic review is carried out based on the guidelines of Preferred Reporting Items for Systematic. The major occupational problems assessed include musculoskeletal disorders, respiratory disorders, liver disorders, physical injuries, occupational exposure, gastrointestinal and skin disorders. Theseassessment studies have suggested the behavioral interventions, engineering improvements, administrative controls and use of personal protective equipment, according to the nature of the hazard.

**Prannoy Thakur, Rajiv Ganguly, Anirban Dhulia (2018)** explored the occupational health risks experienced by the municipal solid waste laborers. The research has been conducted in three different locations such as Shimla, Solan, and Mandi in Himachal Pradesh by considering both permanent as well as contract employees. Researcher had analysed the impact of occupational practices on the health condition of the workers. This study shows that, Permanent workers were getting almost six times the payment of the casual workers. It was found that majority of the workers have either Respiratory problems or Injuries and allergies. Authors opine that, new laws and policies are needed to be introduced for the protection and safety of workers.

**Purushothama K V (2018)** conducted a study in Dakshina Kannada District of Karnataka state in India. This research mainly carried out to evaluate the initiatives and implementation of solid waste management and to identify the problems of solid waste management in local governments of Dakshina Kannada district. This study reported different processes of waste management such as, collection, transportation, storage, segregation, recycle, reuse and proper disposal of various types of non-usable wastes It was found that people's participation in cleanliness drive in rural areas is higher than the urban areas. It was further found that, majority of the respondents were expecting free waste bins from the panchayats to segregate the waste. Author suggested that, local governance has to conduct more awareness programmes on solid waste segregation at source and should provide waste bins to the households to segregate waste at source.

**Pradeep S Salve, Praveen Chokhandre (2016),** conducted a Study in Maharashtra State to identify the work exposure of street sweepers to the development of musculoskeletal disorders (MSDs) and other related disabilities. Study undertook a cross-sectional survey among street sweepers together with a comparison group. Primary data were collected regarding musculoskeletal disorder and other related disability by using modified Standardized Nordic Questionnaire. It was found that the prevalence of the musculoskeletal disorders was significantly higher among the sweepers on shoulders, wrists/hands, elbows and neck compared with the comparison group. The disabilities too were significantly higher among the street sweepers for the lower back, upper back, wrists/hands, shoulders and elbows compared with the comparison group. This study recommends preventive and curative measures to deal with MSDs among street sweepers.

**Khaiwal Ravindra1, Kamalpreet Kaur and Suman Mor (2016)** conducted a study in Chandigarh on 226 workers engaged in collection, transportation, segregation and processing of Municipality Solid Waste. The purpose of the study is to identify the health issues among the respondents due to heavy work exposure. It was observed that, waste collectors are having more health issues than other categories of workers. The major occupational health issues reported by various categories of waste workers were respiratory disorders, injuries and allergies. Author suggested that, to reduce health issues the Municipality Corporations should undertake timely free medical check-up programs.

**Sukanya Rangamani (2015)** has undertaken a research on 29 sanitation workers in Chitradurga town in Karnataka to study the health issues among sanitation workers and to explore remedial actions undertaken by them during health issues. It was observed that injuries and chest pain is the common health issue among the workers. It was reported that Workers continued to work even during the time of ill due to the fear of wage losses and they preferred to follow self-medication. In also reported that taking alcohol is common practice among men workers. It was found that there were no proper health and safety measures at work place.

**Neepa Gandhi (2015)** had conducted this empirical research study with the main purpose to study the living condition and educational status of the Dalit sanitation workers employed in Naranpura& Sabarmati zones of Ahmedabad Municipal Corporation. Study considered 70 respondents. It was observed that majority of the workforce living in slum areas and got up to primary education. It was reported that, most of the sanitation workers families were not aware about the various illnesses that they could contract because of their work and they were not aware about the basic facilities at the work place such as clean drink water and toilet. Author suggested that, Trade unions and organizations should work in favor of these Dalit sanitation workers for equal rights, equal opportunity and a dignified life.

**Vincent Sequeira and J.S. Chandrashekar (2015)** carried out a study to measure the composition of solid waste and the quantity of waste generated in Mangaluru city of Dakshina Kannada District in Karnataka State. It was observed that among the four wards, Shivbhag ward had highest household waste generation followed by Padavu ward. Study identified major composition in solid waste those are Food, Garden trimmings, Paper/card board, Metal, Glass, and Plastic. It was reported that majority of the residents agree that regular collection of garbage is the only solution to the garbage problem, about 87.5% of residents believed that Public education about proper garbage management is best way to fix the garbage crisis.

**Sudhir Nayak, ShrutakirthiShenoi, Gagan Kaur, NeeleBisen, Anoop Purkayastha, Joseph Chalissery (2013),** This study undertaken to examine the dermatological problems among street sanitation workers. Dermatological problem means health issues relating to skin. It was reported that dermatological problems among street sanitation workers are more due their high exposure to infective substances, chemicals, human and animal excreta, as well as sharp objects. It was further reported that majority of workers were have skin problem due to less use of personal protective measures such as gloves, masks, and proper footwear during working hours. Author suggested that creating awareness among the workers regarding the use protective equipments is a best way to reduce the problem of dermatological issues among the workers.

## II.FOREIGN LITERATURES:

**Mulu Gebreslassie Gebremedhu and PrakasmVadakkedath Raman (2019)** analysed the socio-economic and health status of street sweepers of Mekekke city of Ethiopia. Study considered 137 respondents as sample population selected on the basis of Random Sampling method. It is found that, majority of the respondents have low socio-economic profile in terms of education and income and they are not satisfied regarding their work mainly due to low payment and high working duration. It is revealed that, workers were not provided with standard full body protective equipment.

**Abdul Fattah, Md Al Amin, Most Nasrin, Arifin Sultana (2018**) had studied the governance system of city solid waste management as well as the livelihood of the workers who are engaged to the management system of Dhaka South City Corporation (DSCC) in Dhaka. A total of 26 waste clears were considered for the study. The study explored that there was a well-planned waste management system in DSCC (Dhaka South City Corporation) which covers from primary waste collection fromhousehold to final disposal system. It was further explored that the system was well planned but the administration system was weak. It was observed that Most of the respondents were not getting any formal training and majority of female employees were not receiving any maternal leaves.

**Marcos Paulo Gomes Mol, Sandy Cairncross, Dirceu Bartolomeu Greco, and Leo Heller (2018)** had done the work in Brazil to explore the perception of waste management workers regarding work-related accidents. The aims of this study were to understand the different aspects of the participants' health, workers' experiences of work-related accidents and perception of risks. It was observed that Cuts and puncture injuries were reported most frequently in the line of work. Study considered factors like perception of the participants' health, use of personal protective equipment, perspective regarding accidents suffered, perception of work-associated risks, and prejudice for working with solid waste for focus interview. It was reported that majority of respondents lacking use of personal protective equipment.it also reported that workers considered that accidents were the part of their work routine.

**Glenne B. Lagura and Victoria O. Ligan (2018)** studied the livelihood pattern of street sweepers in the city government of Davao region in Philippines. Study mainly discussed about, salary system and working conditions of the respondents. It was observed that majority of the workers were appointed on the contract basis for the period ranging from 1 month to 6 months whereas, these workers are neither entitled for paid leave facility nor any work-related benefits such as Employees State Insurance, Provident Fund facilities. It is revealed that workers were receiving low payments which made them dependent on external loans.

**DebassuEskezia, Zewdie Aderaw, Kedir Y. Ahmed and FentawTadese (2016)** had done a cross-sectional study on 394 respondents in the city of Aba in Southeastern Nigeria to explore the factors of occupational injuries among the waste pickers. Sample size for the study determined by using Stratified simple random sampling method. Primary data were collected from the respondents mainly by semi-structured questionnaires. It was observed that cut/puncture, abrasion and dislocation are the most common type of injuries and Regarding the body parts injured, hands are the most common body parts followed leg. It was reported that, there are some factors have significant association with occupational injury such as job-related stress, less salary, less of use of protective equipment.

**Jutta Gutberlet, Jaan-Henrik Kain,BelindaNyakinya,MichaelOloko,Patrik Zapata, and Marı a Jose Zapata Campos (2016)** made an investigation in Kisumu city in Kenya to study the solid waste management system and to identify the weak links in the system to improve the efficiency. Study identified some weak links in solid waste management and suggested that these weak links can be corrected by taking help from informal waste pickers.

**PhimanThirarattanasunthon, WattasitSiriwong, Mark Robson and MarijaBorjan (2012)** had conducted a study on 88 respondents to evaluate the effect of health risk protection behaviour, knowledge, attitude and practices among solid waste workers in muang Nakhon Ratchasima municipality in Thailand. Results showed that, there is a significance difference before and after the intervention program and also between control group and intervention group. It is observed that, the percentage of physical symptoms was reduced with

increased use of personal protective equipment. Study suggested that, to reduce the health issues to workers, dump site scavenging should be incorporated into the formal sector program.

**Claudel Noel (2010)** carried out a study in Greater Port-au-Prince, Haiti to examine the livelihood strategies of workers engaged in solid waste management and pattern of their involvement in work. This study considered 390 respondents engaging in different processes of solid waste management. Study discussed about factors like, demographical characteristics of the respondents, educational level of workers, job description, work schedule, length of service, earning capacity of workers, health status. It was reported that, Male workers dominated the managerial positions, whereas female workers were hired by the State agencies to sweep and gather solid waste. It was further found that majority of the workers are not satisfied regarding the salary system. Author suggested that, government should provide better salary and compensation so as to improve the livelihood condition of employees.

**Huren An James Englehardt and Lora Fleming Judy Bean (1999)** Conducted a research in Florida to study Injury and disease distributions amongst municipal solid waste (MSW) workers. Data were collected from Florida Workers' Compensation scheme between 1993 to 1997. It was found that workers were most commonly exposed to musculoskeletal and dermal injury risks such as strains or sprains, contusions, fractures, and lacerations. It was reported that Waste collectors had a higher risk of injury than other workers in the Municipal Solid Waste industry. It also reported that majority of workers got injuries on lower extremities of the body parts.

## RESEARCH QUESTIONS

By studying the above literatures, following questions are been raised for further study.

1. What factors stimulated sanitation employees to choose sanitation work?
2. Are sanitation employees in Dakshina Kannada socially and economically empowered?
3. What percentages of sanitation employees have knowledge on government policies applicable to their field of work?
4. Are there any problems faced by sanitation employees?
5. For what extent government initiatives toward sanitation employees succeeded in improving the economic and social condition of sanitation worker?

## STATEMENT OF THE RESEARCH PROBLEM

***"An Empirical Analysis of Civic Employees of Municipalities Engaged in Solid Waste Management in Dakshina Kannada District"***

The review of literature relating to above stated topic, shows that so far, many studies have been undertaken about various aspects of solid waste and solid waste management in India as well as in some foreign countries. Many studies have been even undertaken in Karnataka State also, especially in Dakshina Kannada district about the various aspects of soil waste management such as, waste management strategies of urban administration, site selection of dumping waste, pollution issues because of waste dumping. There are some studies have been even undertaken on employees engaging in solid waste management, but most of the studies have discussed health conditions of sanitation worker, health issues among sanitation workers, factors effecting health conditions of sanitation workers, treatment behavior of sanitation workers. Few researchers have explored socio-economic conditions of sanitation workers but very few researchers have taken up studies relating to livelihood pattern of sanitation workers. So, the

present study aims at the filling this research gap and here an attempt is made to understand the livelihood pattern of sanitation employees in Dakshina Kannada district.

**NEED FOR THE PRESENT STUDY**

Sanitary employees play an important role in the overall process of solid waste management and urban sanitation. It is impossible to handle the waste management work without the sanitation employees. If a person is engaged in hygiene work, it is not an indication of his inability to perform other tasks, instead, it shows his courage to accept and perform a special task that cannot be done by all. Sanitation employees trying hard to provide a healthy and clean environment to society by tolerating some adverse working conditions, such as bad smells from garbage heavy sun light in the summer and heavy rainfall in rainy season. Instead of receiving praise or encouragement for their contribution, they face many hardships in their personal as well as social lives. This study intends to understand the real situations of sanitation employees and to find a way to improve their present situations.

The present study considers sanitation workers in solid waste management in Dakshina Kannada district of Karnataka state. Sanitary employees of all eleven municipalities in Dakshina Kannada are considered for the study.

**PROFILE OF SANITATION EMPLOYEES:**

Sanitation worker in India comes under the group of Informal sectors. In India approximately five million individuals are engaged in solid waste management. In Karnataka the number of sanitation employees is around one lakh. According to referred sources, about Nine Hundred workers are involved in sanitation work in Dakshina Kannada district. In some cases, the municipal corporation either directly hires employees on a permanent basis or they give the tender for the appointment of employees on a contract basis. On the basis of nature of the recruitment, sanitation employees are categorized into 3 types as, permanent sanitation employees, outsourced sanitation employees and temporary sanitation employees. Sanitation workers need to do the works such as like collection of waste, sweeping the public places, picking the waste from public places, segregation of waste and transportation of waste from collection place to

dumping site. Regarding the working hours, it is same for all type of sanitation employees. In case of salary, outsourced and contract employees getting lower payments than permanent employees. Provident fund and Employees State insurance benefits are there for all sanitation employees. Workers have to report the work place around seven A.M in morning and work till three P.M in evening every day.

**OBJECTIVES OF THE RESEARCH**

Following are the important objectives of the study.

1. To explore the factors that influence sanitation employees towards the selection of sanitation work.
2. To study the socio- economic conditions of the sanitation employees in Dakshina Kannada.
3. To understand the awareness of sanitation employees regarding government policies and frameworks those are applicable to their field of work.
4. To identify the issues and challenges faced by the employees.
5. To evaluate the effectiveness of government initiatives towards sanitation employees in Dakshina Kannada.

**SCOPE AND NATURE:**

The present study restricted to sanitation employees of municipality corporations engaged in solid waste management in Dakshina Kannada District.

The proposed study is designed as a descriptive one based on both primary and secondary data and is confined to the sanitation employees of municipality corporations engaged in solid waste management in Dakshina Kannada District of Karnataka state. Factors stimulating the employees in selection of sanitation job, socio- economic condition of sanitation employees, problems of sanitation employees, awareness of sanitation employees about the government initiatives and effectiveness of government programs will be analyzed in detail. The study is micro in nature since it focuses on selected district. The conclusions are based on the empirical evidence, this is an empirical inquiry too.

The District selected for the study is Dakshina Kannada District. In dakshina kannada study considered all eleven municipalities such as Mangaluru city Corporation, City Municipal Council – Ullala, City Municipal Council – Puttur, Town Municipal Council – Moodabidri, Town Municipal Council – Bantwal, Town Panchayath – Kotekar, Town Municipal Council – Someshwara, Town Panchayath – Mulki, Town Panchayath– Vittla, Town Panchayath – Belthangady, Town Panchayath – Sullia. The respondents for the study will be civic sanitation employees of municipalities in Dakshina Kannada district.

**METHODOLOGY:**

The study will be undertaken in the Dakshina Kannada district of Karnataka State in India for an in-depth analysis of issues related livelihood pattern of sanitation workers. To investigate the above objectives the study will be based on primary data and as well as secondary data which will be supported by other analytical and empirical studies concerning the topic Primary data will be enumerated from field survey works among the sample population selected for the study. For collection of primary data structured questionnaire will be prepared and personal interview method will be followed. The secondary data for the analysis would be collected from various journals, Government report and documents, and Municipality reports.

**IMPLICATIONS:**

The present study will be carried out to study the livelihood pattern of sanitation workers and to find out the challenges of workers and to suggest appropriate measure to improve their present livelihood in Dakshina Kannada district of Karnataka State. The findings of present study can be useful for understanding the socio- economic condition of sanitation employees and will be providing data related to sanitation employees for future research and to provide guidelines for framing targeted policy and proper implementation of government schemes related to sanitation employees. The research expected output can be very useful as it is grass root level study. This study will help to understand real situation of sanitation employees, their difficulties in workplaces as well as in society. This study also will help to design inclusive approach in favor of sanitation employees which will help them to attain highest level of sustainable development.

**LIMITATIONS:**

Primarily, this study is restricted only to Dakshina Kannada District of Karnataka State. The research study has its own limitation like, language barriers, financial resources and availability of the primary and secondary data. Despite the limitations listed above, sincere and honest efforts will be put in to make the study systematic and effective.

**CHAPTER SCHEME:**

The research study titled "**An Empirical Study of Livelihood Pattern of Civic Employees Engaged in Solid Waste Management in Dakshina Kannada District" is** coordinated in five Chapters as detailed below.

**CHAPTER – I : "INTRODUCTION"**

It presents an overview of the subject matter of the research study by clearly detailing the conceptual framework, need for the present study, research questions, objectives. In addition, methods - sources and methods used for data collection, tools of analysis, scope and limitations of the present study, and chapter scheme will be given in this chapter.

**CHAPTER – II : "THEORETICAL FOUNDATION AND REVIEW OF LITERATURE"**

It outlines the theoretical foundation of inclusive policy education, social and economic and empowerment, and provides a detailed review of earlier research studies conducted in this field of knowledge**.**

**CHAPTER– III : CONCEPTUAL FRAMEWORK**

It Provides a critical discussion about the livelihood patter of sanitation employees at national, state level and local level in Dakishna Kannada district of Karnataka in India. This chapter also discusses the various targeted programmes initiated for the upliftment of employees.

**CHAPTER– IV : DATA ANALYSIS AND INTERPRETATION**

It provides information based on results and finding of the research through the use of charts, diagrams and tables to decision making or to frame suggestion.

**CHAPTER-V : "SUMMARY AND CONCLUSION"**

It presents a summary of the research results and discussions given in the earlier Chapters and important economic implications for enhancing the overall effectiveness of government programmes to improve sanitation employees' condition. Finally, the Chapter concludes by providing the directions for further research in this field of study.

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